

Message

From: Dermer, Michele [Dermer.Michele@epa.gov]
Sent: 2/22/2018 7:45:14 PM
To: Albright, David [Albright.David@epa.gov]; Engelman, Alexa [ENGELMAN.ALEXA@EPA.GOV]
CC: Ho, Yenhung [Ho.Yenhung@epa.gov]
Subject: FW: Cat Canyon AE, Federal Exemption Criteria
Attachments: Pages from AE Draft Nov 30 17 - Copy.pdf

We had a call this morning with Jeff Kimber, Matt Van Grisven and Water Board folks – Janice, Eric and some Region Board people – Matt Keeling, etc. There is a shale (Lower Sisquoc) that can be up to 1200 feet thick in between the two producing aquifers that they are going to submit AE application for. The shale has some sand lenses that produce HC also. I'll forward the earlier email they sent on this topic. The state was trying to decide how to handle the proposed exemption of this shale. I originally emailed them a few weeks ago when they brought this up -- that we would not have to exempt a formation that was not a USDW. We talked about all this in more detail today.

I understood from the conversation we had today that the shale does not meet the definition of a USDW, and that they are going to submit information to demonstrate this – as part of the package for the two aquifers. We will see what we get. Calvin and Shari participated in the call and agree with this approach.

From: Kimber, Jeff@DOC [mailto:Jeff.Kimber@conservation.ca.gov]
Sent: Wednesday, February 21, 2018 4:46 PM
To: Ho, Yenhung <Ho.Yenhung@epa.gov>; Dermer, Michele <Dermer.Michele@epa.gov>
Cc: Cochrane, Matthew@Waterboards <Matthew.Cochrane@Waterboards.ca.gov>; Loera, Danny@DOC <Danny.Loera@conservation.ca.gov>
Subject: RE: Cat Canyon AE, Federal Exemption Criteria

Michele and Calvin,

Attached are some pages from the application which I believe will aid tomorrow's discussion. What I pulled out includes water quality information, cross-sections showing the proposal, descriptions of the formations, and figures showing the proposed area.

Jeff

From: Ho, Yenhung [mailto:Ho.Yenhung@epa.gov]
Sent: Wednesday, February 21, 2018 1:34 PM
To: Dermer, Michele <Dermer.Michele@epa.gov>; Kimber, Jeff@DOC <Jeff.Kimber@conservation.ca.gov>
Subject: RE: Cat Canyon AE, Federal Exemption Criteria

Jeff,

You may want to upload the document to a FTP site (e.g., you DOGGR website).

Cadmus forwarded us the Cat Canyon ppt, but not the application (too large). Would the ppt contain sufficient information for tomorrow's discussion?

Calvin

From: Dermer, Michele
Sent: Wednesday, February 21, 2018 1:14 PM
To: Kimber, Jeff@DOC <Jeff.Kimber@conservation.ca.gov>; Ho, Yenhung <Ho.Yenhung@epa.gov>
Subject: RE: Cat Canyon AE, Federal Exemption Criteria

Hi Jeff--

I don't, Calvin, do you have any ideas?

From: Kimber, Jeff@DOC [<mailto:Jeff.Kimber@conservation.ca.gov>]

Sent: Wednesday, February 21, 2018 12:53 PM

To: Dermer, Michele <Dermer.Michele@epa.gov>

Subject: RE: Cat Canyon AE, Federal Exemption Criteria

Michele,

I will do that. I'm guessing that this is also the case for the Mount Poso Addendum I just sent. Do you know of any other way to send large electronic files?

Jeff

From: Dermer, Michele [<mailto:Dermer.Michele@epa.gov>]

Sent: Wednesday, February 21, 2018 12:47 PM

To: Kimber, Jeff@DOC <Jeff.Kimber@conservation.ca.gov>

Cc: Ho, Yenhung <Ho.Yenhung@epa.gov>; Shari.Ring@cadmusgroup.com; Loera, Danny@DOC <Danny.Loera@conservation.ca.gov>

Subject: RE: Cat Canyon AE, Federal Exemption Criteria

Hi Jeff,

EPA cannot access anything in the Dropbox application due to security issues. You can send a .pdf of the pertinent pages that we will be discussing tomorrow or show them on the screen when we talk. Thanks

From: Kimber, Jeff@DOC [<mailto:Jeff.Kimber@conservation.ca.gov>]

Sent: Wednesday, February 21, 2018 12:10 PM

To: Dermer, Michele <Dermer.Michele@epa.gov>

Cc: Ho, Yenhung <Ho.Yenhung@epa.gov>; Shari.Ring@cadmusgroup.com; Loera, Danny@DOC <Danny.Loera@conservation.ca.gov>

Subject: RE: Cat Canyon AE, Federal Exemption Criteria

Michele,

We are still on for tomorrow. I will send a Blue Jeans invite out shortly. The following Drobox link contains the current state of the application. Keep in mind that because the application is still under the Water Board's review, some aspects may change prior to the public comment period.

<https://www.dropbox.com/sh/8irzgi0epe25nug/AAA5Pqy6gaLHxf5uhXRFCj9la?dl=0>

Thanks,

Jeff

From: Dermer, Michele [<mailto:Dermer.Michele@epa.gov>]

Sent: Wednesday, February 21, 2018 11:56 AM

To: Kimber, Jeff@DOC <Jeff.Kimber@conservation.ca.gov>

Cc: Ho, Yenhung <Ho.Yenhung@epa.gov>; Shari.Ring@cadmusgroup.com

Subject: RE: Cat Canyon AE, Federal Exemption Criteria

Hi Jeff,

We did not get anything further about this issue – an invite or any follow up data? Did you want to reschedule?

Michele

From: Kimber, Jeff@DOC [<mailto:Jeff.Kimber@conservation.ca.gov>]

Sent: Friday, February 16, 2018 11:22 AM

To: Dermer, Michele <Dermer.Michele@epa.gov>

Subject: RE: Cat Canyon AE, Federal Exemption Criteria

Great. Thanks Michele.

From: Dermer, Michele [<mailto:Dermer.Michele@epa.gov>]

Sent: Friday, February 16, 2018 8:34 AM

To: Kimber, Jeff@DOC <Jeff.Kimber@conservation.ca.gov>

Cc: Cochrane, Matthew@Waterboards <Matthew.Cochrane@Waterboards.ca.gov>; Ho, Yenhung <Ho.Yenhung@epa.gov>; Shari.Ring@cadmusgroup.com

Subject: RE: Cat Canyon AE, Federal Exemption Criteria

Hi Jeff,

Yes, next Thursday at 9 should work. Please invite Calvin and Shari too. Thanks. And send along anything you'd like us to look at.

From: Kimber, Jeff@DOC [<mailto:Jeff.Kimber@conservation.ca.gov>]

Sent: Thursday, February 15, 2018 8:47 AM

To: Dermer, Michele <Dermer.Michele@epa.gov>

Cc: Cochrane, Matthew@Waterboards <Matthew.Cochrane@Waterboards.ca.gov>

Subject: RE: Cat Canyon AE, Federal Exemption Criteria

Michele,

Will you be available to meet next Thursday at 9am?

Jeff

From: Dermer, Michele [<mailto:Dermer.Michele@epa.gov>]

Sent: Wednesday, February 14, 2018 11:55 AM

To: Kimber, Jeff@DOC <Jeff.Kimber@conservation.ca.gov>

Cc: Borkovich, John@Waterboards <John.Borkovich@waterboards.ca.gov>; Zinky, Janice@Waterboards <Janice.Zinky@waterboards.ca.gov>; Albright, David <Albright.David@epa.gov>; Ho, Yenhung <Ho.Yenhung@epa.gov>; Cochrane, Matthew@Waterboards <Matthew.Cochrane@Waterboards.ca.gov>; Gillman, Eric@Waterboards <Eric.Gillman@Waterboards.ca.gov>; Nelson, Don@DOC <Don.Nelson@conservation.ca.gov>; Loera, Danny@DOC <Danny.Loera@conservation.ca.gov>

Subject: RE: Cat Canyon AE, Federal Exemption Criteria

Hi Jeff,

Thank you for bringing this to our attention; we will be happy to sort through this with you and Water Board. Since it is a technical question, I would suggest we cover it during a meeting separate from tomorrow's monthly compliance

meeting- we can also arrange to have Cadmus participate, if that would be appropriate. You mention there is additional data from the application that may be relevant. If you'd like to schedule a Blue Jeans call to present that information, let's do that, or please forward the relevant supplemental information at your convenience prior to a call. I have one initial question based on what was sent yesterday, and that is whether or not the State feels that the shale is a USDW.

Please let us know if you'll plan to send further information or if we can cover it during a call – and let us know when you'd like to have a conference call to discuss further. Thanks!

Sincerely,
Michele

Michele Dermer
Drinking Water Protection Section
(415) 972-3417

From: Kimber, Jeff@DOC [<mailto:Jeff.Kimber@conservation.ca.gov>]
Sent: Tuesday, February 13, 2018 11:26 AM
To: Albright, David <Albright.David@epa.gov>; Dermer, Michele <Dermer.Michele@epa.gov>; Ho, Yenhung <Ho.Yenhung@epa.gov>
Cc: Borkovich, John@Waterboards <John.Borkovich@waterboards.ca.gov>; Zinky, Janice@Waterboards <Janice.Zinky@waterboards.ca.gov>; Cochrane, Matthew@Waterboards <Matthew.Cochrane@Waterboards.ca.gov>; Gillman, Eric@Waterboards <Eric.Gillman@Waterboards.ca.gov>; Nelson, Don@DOC <Don.Nelson@conservation.ca.gov>; Loera, Danny@DOC <Danny.Loera@conservation.ca.gov>
Subject: Cat Canyon AE, Federal Exemption Criteria

Good Morning,

See the image below. The State Water Resources Control Board and DOGGR have jointly decided to ask the USEPA if a particular shale in the Cat Canyon Oil Field meets the Federal Exemption Criteria. Currently, the Cat Canyon Aquifer Exemption is being reviewed by the Water Boards.

The exemption proposal concerns two oil producing formations, the Monterey and the Sisquoc. The Monterey is the area's petroleum source rock, it is oil saturated across the entire field, and many wells draw oil from it. The Sisquoc is also a prolific oil reservoir, but not entirely across its vertical extent. For instance, the lower sisquoc is a shale that, in places, is about 1000 feet thick, and the upper sisquoc serves as a petroleum cap rock.

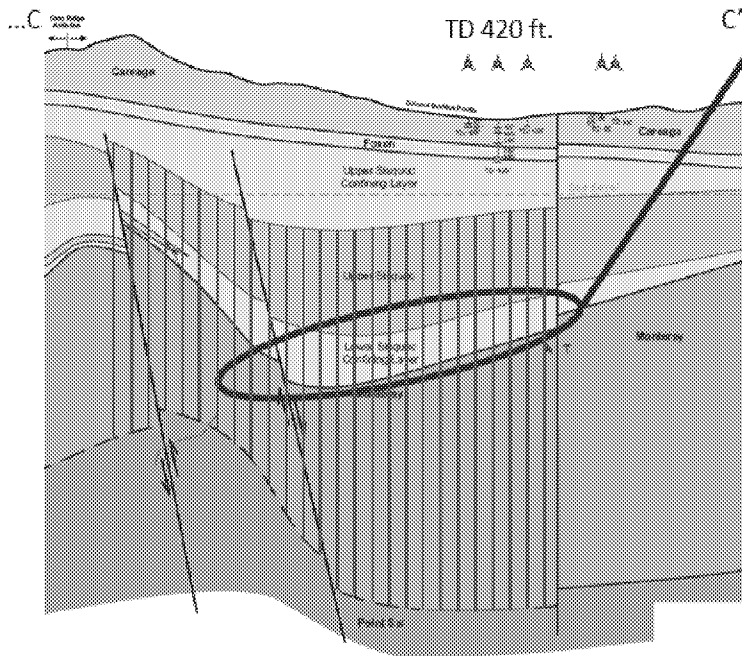
Our question concerns the Lower Sisquoc, which is a shale 'sandwiched' between the two oil reservoirs proposed for exemption. It would be simplest to include this shale layer in the exemption proposal as shown by the hatched area in the image below. Furthermore, there are currently water disposal wells (possibly 25) that have perforations across the shale layer, which would may have to be reconstructed if the shale is not included in the exemption. However, because its lack of permeability, we do not have a water quality sample and are unable to prove potential commercial oil production.

We would like to discuss this further during our joint meeting on Thursday (2-15-18). We can also share more data from the application to help guide your decision.

Respectfully,

Jeff Kimber

Engineering Geologist- Reservoir Evaluation Unit
Department of Conservation
Division of Oil, Gas, and Geothermal Resources- Inland District
4800 Stockdale Hwy
Bakersfield, CA 93309
(661) 334-3652



DOES THIS SHALE MEET FEDERAL EXEMPTION CRITERIA?

- The Lower Suisun is a shale. In some areas, this shale is over 1,000 feet thick.
- Due to its lack of permeability/ flow, we have no water quality samples and cannot prove potential commercial oil production.
- However, it is sandwiched between the Monterey (a commercially productive, petroleum source rock) and the Suisun (a prolific oil reservoir).
- In some areas, intermittent sands within the shale are oil productive.
- Both the Suisun and Monterey oil reservoirs are proposed for exemption. Including this shale in the proposal simplifies matters.
- There are possibly 25 water disposal wells that have perforation intervals extending from the Upper Suisun, across the shale, and into the Monterey. If this exemption does not include the shale, then those wells would have to be reconstructed.